



TITLE OF THE INVENTION

DIGITAL CONTENT BILLING SYSTEM USING NETWORKS

5 BACKGROUND OF THE INVENTION

Field of the Invention

The present invention relates to a digital content billing system in which digital content such as music files, video files and game software titles is downloaded to a plurality of users through networks and the billing for each downloaded digital content is performed according to the number of execution times of the downloaded digital content.

Description of Related Art

A charge collecting system for collecting a charge for software according to the number of execution times or an execution time period using a fee-charging software, such as the "Software Management System" disclosed in the Published Unexamined Japanese Patent Application No. H6-95302 of 1994 is known. In this software management system, an identifier code of used software, a user identifier code of a user and a fee for the software are recorded. A person holding the copyright of the software obtains an execution condition of the software by collecting the identifier code. The user identifier code and the execution fee. The execution fee for the software is determined according to the number of execution times of the software, and the execution fee is collected from the user. However, advertising information cannot be included in the software management system of the above application. In printed publications a publisher can receive an advertising request from an advertiser. The publisher inserts an advertisement in magazines or newspapers and collects an advertisement rate from the advertiser. Therefore, the price of the magazine or newspaper can be lowered. However, in the case of software, the software downloading fee cannot be lowered. Therefore, the software user has to pay the total software execution fee charged by a software provider.

The "Information Accounting System" disclosed in the Published Unexamined Japanese Patent Application No. H9-114755 of 1997 is also known. In this information accounting system, advertising information of an advertiser is provided to a user when the user uses the digital information of an information provider. A portion of an execution fee for using the digital information is covered by advertisement rate for the advertising

information. The execution fee collected from the user using the digital information is reduced by the portion of the execution fee covered by the advertisement rate.

However, in the information accounting system of the above application, the information provider collects the digital information execution fee from both the user 5 using the digital information and the advertiser providing the advertising information. Therefore, there is a problem that the accounting system becomes complicated.

Also, in the dealings of the information provider with a plurality of users widely dispersed all over their country (or countries), the information provider does not personally interact with the users, but instead has to deal with the users connected to the 10 information provider through subscriber lines. Therefore, another problem that arises in collecting money from each user for the execution fee is difficult for the information provider.

Also, a usual payment method allows users to pay the execution fee to the information provider after the use of the digital information. Therefore, there is a case that a user does not 15 pay the execution fee to the information provider though the user did use the digital information, so that there is a probability that the information provider cannot collect the execution fee from some users.

SUMMARY OF THE INVENTION

20 An object of the present invention is to provide, with due consideration to the drawbacks of the conventional software managing system and the conventional information accounting system, a digital content billing system using a network in which a billing of digital content is easily performed while accelerating the use of digital content and an 25 execution fee for the digital content is reliably collected.

The object of the present invention is achieved by the provision of a digital content billing system using a network, comprising: a holder for having digital content copyright and holding a right to let a third person use

30 the digital content; a distributor for obtaining the digital content from the holder and distributing the digital content to a user; an advertiser for possessing an advertising information piece to be provided for the user; and an administrator for obtaining the advertising information piece from the advertiser, receiving an execution declaration of the digital content from the user, downloading the advertising information piece and a permission for the execution declaration to the user through the network, collecting an advertisement

rate, for the advertiser that corresponds to the number of execution times of the digital content used by the user, and paying an execution fee to the holder that corresponds to the number of execution times of the digital content.

In the above configuration, the distributor distributes the digital content obtained from the holder to the user. The administrator receives the advertising information piece from the advertiser. When the user sends the execution declaration of the digital content to the administrator, the administrator downloads the advertising information piece and a permission for the execution declaration to the user to permit the user to use the digital content and, for example, to insert the advertising information piece into the digital content. Therefore, the user can enjoy the digital content while seeing the advertising information piece. This procedure is repeatedly performed to make the user use the digital content a prescribed number of times.

Thereafter, the administrator collects an advertisement rate from the advertiser corresponds to the number of execution times of the digital content. The administrator also pays an execution fee to the holder that corresponds to the number of execution times of the digital content.

Accordingly, the user can execute a desired digital content without charge, and the holder can make many users use the digital content held by the holder and can collect an execution fee corresponding to the number of execution times of the digital content. Also, the administrator is not required to collect the execution fee from each of plurality of users even though the users execute the digital content, and therefore the administrator can be released the troublesome work of collecting the execution fee from each of a plurality users. Also, the advertiser can efficiently provide the advertising information piece to many users.

The object of the present invention is also achieved by the provision of a digital content billing system using a network, comprising:

a holder for having digital content, which is set to become usable by an execution key, and holding a right to let a third person use the digital content;

a distributor for obtaining the digital content from the holder and distributing the digital content to a user; an advertiser for possessing an advertising information piece to be provided for the user; and

an administrator for obtaining the execution key from the holder, obtaining the advertising information piece from the advertiser, receiving an execution declaration of the digital content from the user, downloading the advertising information piece and the execution key to the user through the network, collecting an advertisement rate from the

advertiser that corresponds to the number of execution times of the digital content used by the user, and paying an execution fee to the holder that corresponds to the number of execution times of the digital content.

In the above configuration, the distributor distributes the digital content obtained from the holder to the user. The administrator receives the advertising information piece from the advertiser. The administrator also receives the execution key from the holder. When the user sends the execution declaration of the digital content to the administrator, the administrator downloads the advertising information piece and the execution key to the user permitting the user to use the digital content made usable by the execution key and, for example, inserting the advertising information piece into the digital content. Therefore, the user can enjoy the digital content while seeing the advertising information piece. This procedure is repeatedly performed to make the user use the digital content a prescribed number of times.

Thereafter, the administrator collects an advertisement rate from the advertiser that corresponds to the number of execution times of the digital content. The administrator also pays an execution fee to the holder that corresponds to the number of execution times of the digital content.

Accordingly, the user can enjoy the desired digital content without charge, and the holder can make many users use the digital content held by the holder and can collects an execution fee corresponding to the number of execution times of the digital content. Further, the administrator is not required to collect the execution fee from each of a plurality of users even though the users use the digital content, and therefore the administrator is released from the troublesome work collecting the execution fee from each of the plurality of users. Therefore, the advertiser can efficiently provide the advertising information piece to many users.

It is preferred that the advertising information piece downloaded to the user is displayed simultaneously with the digital content in cases where the user uses the digital content by using the execution key downloaded to the user.

Because the advertising information piece is displayed simultaneously with the digital content, the advertiser can efficiently make the user see the advertising information piece.

It is also preferred that the advertising information piece downloaded to the user is displayed in the time period between time periods in which the digital content is displayed in cases where the user uses the digital content by using the execution key downloaded to the user.

Because the advertising information piece is displayed in a time period between time periods in which the digital content is displayed, the advertiser can efficiently make the user see the advertising information piece.

It is also preferred that the distributor notifies the holder of the number of download times of the digital content downloaded to the user, and that the holder pays a download charge to the distributor that corresponds to the number of download times of the digital content.

Because the distributor notifies the holder of the number of download times of the digital content downloaded to the user, the distributor can reliably collect the download charge from the holder.

It is also preferred that the administrator downloads a plurality of advertising information pieces and the execution key to the user in cases where the administrator receives the execution declaration of the digital content from the user. The execution key permits the user to use the digital content a prescribed number of times.

Since it is not required that the user sends the execution declaration to the administrator each time the user uses the digital content, the user can reduce the troublesomeness of the sending of the execution declaration, and the waiting period resulting from the sending of the execution declaration to the receiving of the execution key can be shortened.

It is also preferred that the user uses the digital content by using an execution key downloaded from the administrator in the past while seeing an advertising information piece downloaded from the administrator in the past in cases where the execution key is not currently downloaded to the user from the administrator because of an abnormal state even though a prescribed time passes after the user sends the execution declaration of the digital content.

In cases where the user cannot be connected to the administrator because of the occurrence of an abnormal state and the user tries to send the execution declaration to the administrator, the user can still use the digital content made usable by using an execution key downloaded in the past and see an advertising information piece that was downloaded with the execution key. Therefore, even though the abnormal state occurs in the digital content billing system using the network, the user can reliably use the digital content.

It is also preferred that the user notifies the administrator that the user uses the digital content by using the execution key downloaded from the administrator in the past after the abnormal state is finished. Since the use of the digital content using an execution key

downloaded in the past is performed in an offline operation, the administrator can accurately obtain the number of execution times of the digital content used in the offline operation.

It is also preferred that the advertising information piece downloaded from the administrator to the user corresponds to the digital content. Since the user sees an advertising information piece in which the user takes an interest, it is not likely that the user is inconvenienced or offended given by seeing an advertising information piece in which the user takes no interest. Further, the advertiser can efficiently make the user see the advertising information piece in which the user takes an interest.

It is also preferred that the administrator encourages or requires the user to select a genre of the advertising information pieces to be downloaded to the user in cases where the administrator receives the execution declaration of the digital content from the user. In this embodiment the advertising information pieces of downloaded to the user are of the selected genre.

Since the user selects his desired genre of the advertising information piece to be downloaded to the user, the advertiser can efficiently makes the user see the advertising information piece in which the user takes an interest. Further, it is not likely that the user is inconvenienced or offended by seeing an advertising information piece in which the user takes no interest.

It is also preferred that the administrator downloads the advertising information piece, that corresponds to content of another digital content used by the user in the past in cases where the administrator receives the execution declaration of the digital content from the user. Since, tastes and interests of the user can be better understood according to the content of the digital content used by the user in the past it is unlikely that the user sees an advertising information piece in which the user takes no interest. Further, it is unlikely that the user feels is inconvenienced or offended by seeing an advertising information piece in which the user takes no interest. Therefore, the advertiser can efficiently make the user see the advertising information piece in which the user takes an interest.

It is also preferred that the administrator collects the advertisement rate from the advertiser, which is determined according to a matching point between the content of the digital content related to the execution declaration of the user and the content of the advertising information piece downloaded from the administrator to the user.

As a matching point becomes high, the interest of the user in the advertising information piece becomes high. Therefore, in cases where the administrator downloads the advertising information piece corresponding to a high matching point, the administrator can

collect from the advertiser a high advertisement rate for the advertising information piece. Further, since the advertiser pays the advertisement rate for the advertising information piece corresponding to a high matching point to the administrator, the advertiser does not pay a high advertisement rate for an advertising information piece related to a low matching point.

5 Therefore, the advertiser can rely on the administrator to download the advertising information piece corresponding in content to the content of the digital content.

It is also preferred that the administrator guarantee the advertiser the lowest number of 10 downloading times of the advertising information piece downloaded to the user or a lowest ratio of the number of downloading times of the advertising information piece downloaded to the user to the number of downloading times of all advertising information pieces received from the advertiser.

15 Since the lowest number of downloading times of the advertising information piece or the lowest ratio of the number of downloading times of the advertising information piece to the total downloading number, the advertiser can expect a prescribed advertising effect required for the selling promotion of particular goods. Therefore, the advertiser can rely on the administrator without anxiety to download the advertising information piece to the user.

It is also preferred that the administrator encourages or requires to select the user a 20 residential district of the user in cases where the administrator receives the execution declaration of the digital content from the user, and the administrator downloads to the user the digital content that closely relates to the residential district of the user. The advertiser closely related to a particular residential district can download his advertising information piece to a user who resides in the same particular district. Therefore, the advertiser can efficiently and effectively tailor his advertisement for the user residing in the district closely related to the advertiser.

25 It is also preferred that the administrator downloads the digital content, which closely relates to a residential district of the user, and a nationwide digital content to the user in cases where the administrator receives the execution declaration of the digital content from the user. Because the advertising information piece closely related to the residential district of the user and the nationwide advertising information piece are downloaded to the user, the user can see 30 the nationwide advertising information piece and the advertising information piece at.

It is also preferred that the administrator downloads the digital content closely related to a

residential district of the user, which is notified by a network operator managing the network, to the user in cases where the administrator receives the execution declaration of the digital

content from the user. It is not required that the user notifies the administrator of the residential district of the user. Therefore, the user can be released from a troublesomeness in which the user must notify the administrator of the residential district. Also, the advertiser can make the user see the advertising information piece closely related to the user without making the user select his residential district.

5 The object of the present invention is also achieved by the provision of a digital content billing system using a network, comprising:

an advertiser for possessing an advertising information piece to be provided to a user;

10 a holder for receiving the advertising information piece from the advertiser, having digital content, which is set to become usable by an execution key, and holding a right to let a third person use the digital content;

15 a distributor for obtaining the digital content, in which the advertising information piece is included, from the holder and distributing the digital content with the advertising information piece to the user; and

20 an administrator for obtaining the execution key from the holder, receiving an execution declaration of the digital content from the user, downloading the execution key to the user through the network, and notifying the advertiser of the number of execution times of the digital content used by the user, wherein the holder collects an advertisement rate from the advertiser that corresponds to the number of execution times of the digital content used by the user and the holder pays a download charge to the administrator that , corresponds to the 25 number of download times of the execution key is downloaded from the administrator to the user.

25 In the above configuration, the distributor distributes the digital content from a holder to the user that, which includes the advertising information piece. The administrator receives the execution key from the holder. When the user sends the execution declaration of the digital content to the administrator, the administrator downloads the execution key to the user to permit the user to use the digital content made usable by the execution key. Therefore, the user can enjoy the digital content while seeing the advertising information piece. This procedure is repeatedly performed to make the user use the digital content a 30 prescribed number of times.

Thereafter, the administrator notifies the advertiser of the number of execution times of the digital content used by the user, so that the holder can collect from the advertiser an advertisement rate that corresponds to the number of execution times of the digital content.

The holder pays a download charge to the administrator that corresponds to the number of download times the execution key is downloaded from the administrator to the user.

Accordingly, it is not required that the user waits for the downloading of the advertising information piece each time the user uses the digital content. Therefore, the 5 waiting period from the sending of the execution declaration to the receiving time of the execution key can be shortened.

The object of the present invention is also achieved by the provision of a digital content billing system using a network, comprising:

10 a holder for having digital content, which is set to become usable by an execution key, and holding a right to let a third person use the digital content;

an advertiser for possessing an advertising information piece to be provided for a user; and

15 an administrator and distributor for obtaining the digital content and the execution key from the holder, receiving the advertising information piece from the advertiser, receiving an execution declaration of the digital content from the user, downloading the digital content, the execution key and the advertising information piece to the user through the network in response to the execution declaration, collecting an advertisement rate from the advertiser that corresponds to the number of execution times of the digital content used by the user, and paying an execution fee to the holder that corresponds to the number of execution times of 20 the digital content used by the user.

In the above configuration, the administrator and distributor obtains the digital content and the execution key from the holder and receives the advertising information piece from the advertiser. When the administrator and distributor receives an execution declaration of the digital content from the user, the administrator and distributor downloads the digital content, 25 the execution key and the advertising information piece to the user through the network. Therefore, the user can enjoy the digital content while seeing the advertising information piece. This procedure is repeatedly performed to make the user use the digital content a prescribed number of times.

Thereafter, the administrator and distributor collects an advertisement rate from the 30 advertiser that corresponds to the number of execution times of the digital content used by the user, and the administrator and distributor pay an execution fee to the holder that corresponds to the number of execution times of the digital content used by the user.

Accordingly, because the digital content, the execution key and the advertising information piece are simultaneously downloaded to the user, the user can obtain the

digital content simultaneously with the sending of the execution declaration of the digital content.

BRIEF DESCRIPTION OF THE DRAWINGS

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Figure 1 is a diagram showing the configuration of a digital content billing system using a network according to a first embodiment of the present invention:

Figure 2 is a diagram showing the configuration of a terminal possessed by the user la;

10 Figure 3(a) is a diagram showing a preventing method of digital content unrighteous execution in which digital content converted into a digital information ciphering type is distributed;

Figure 3(b) is a diagram showing another preventing method of digital content unrighteous execution in which a guard is arranged in digital content or a terminal;

Figure 4 is a diagram showing an entire processing of the digital content billing system using the network shown in Fig. 1;

Figure 5 is a diagram showing a procedure of a preparation stage in the digital content billing system using the network shown in Fig. 1;

20 Figure 6 is a diagram showing a procedure of an execution stage of the digital content
in the digital content billing system using the network shown in Fig. 1;

Figure 7 is a diagram showing a display example of an advertising information piece and digital content of a game software title downloaded to a user;

Figure 8 is a diagram showing a display example of advertising information and digital content of a cinema downloaded to a user;

Figure 9 is a diagram showing a procedure of an account settlement stage in the digital content billing system using the network shown in Fig. 1;

Figure 10 is a diagram showing an entire processing of the digital content billing system using the network shown in Fig. 1 according to a second embodiment of the present invention;

Figure 11 is a diagram showing a procedure of a preparation stage in the digital content billing system using the network shown in Fig. 1 according to the second embodiment;

Figure 12 is a diagram showing a procedure of an execution stage of digital content in the digital content billing system using the network shown in Fig. 1 according to the second embodiment;

5 Figure 13 is a diagram showing a procedure of an account settlement stage in the digital content billing system using the network shown in Fig. 1 according to the second embodiment; Figure 14 is a diagram showing an entire processing of the digital content billing system using the network shown in Fig. 1 -according to a third embodiment of the present invention;

10 Figure 15 is a diagram showing a procedure of a preparation stage in the digital content billing system using the network shown in Fig. 1 according to the third embodiment;

Figure 16 is a diagram showing a procedure of an execution stage of digital content in the digital content billing system using the network shown in Fig. 1 according to the third embodiment;

15 Figure 17 is a diagram showing a procedure of an account settlement stage in the digital content billing system using the network shown in Fig. 1 according to the third embodiment;

Figure 18 is a diagram showing a procedure of a preparation stage in the digital content billing system using the network shown in Fig. 1 according to a fourth embodiment;

20 Figure 19 is a diagram showing a procedure of an execution stage of digital content in the digital content billing system using the network shown in Fig. 1 according to the fourth embodiment;

Figure 20 is a diagram showing a procedure of an account settlement stage in the digital content billing system using the network according to the fourth embodiment;

25 Figure 21 is a diagram showing a procedure of an execution stage of digital content in the digital content billing system using the network shown in Fig. 1 according to a fifth embodiment;

Figure 22 is a diagram showing a procedure of the determination of an advertisement rate in an account settlement stage in the digital content billing system using the network shown in Fig. 1 according to a sixth embodiment;

30 Figure 23 is a block diagram showing the configuration of a server possessed by an administrator;

Figure 24 is a diagram showing a procedure of the determination of an advertising information piece in an execution stage of digital content in the digital content billing system using the network shown in Fig. 1 according to a seventh embodiment;

Figure 25 is a diagram showing a procedure of the determination of an advertising information piece in an execution stage of digital content in the digital content billing system using the network shown in Fig. 1 according to an eighth embodiment;

5 Figure 26 is a diagram showing an advertising information genre selection image used for a user to determine a genre of an advertising information piece;

Figure 27 is a block diagram showing the configuration of a server possessed by an administrator according to a ninth embodiment;

10 Figure 28 is a diagram showing a procedure of the determination of an advertising information piece in an execution stage of digital content in the digital content billing system using the network shown in Fig. 1 according to the ninth embodiment;

Figure 29 is a diagram showing a procedure of the determination of an advertisement rate in an account settlement stage in the digital content billing system using the network shown in Fig. 1 according to a tenth embodiment;

15 Figure 30 is a diagram showing a contract relationship between an administrator and each advertiser according to an eleventh embodiment;

Figure 31 is a diagram showing a procedure of the determination of an advertising information piece in an execution stage of digital content in the digital content billing system using the network shown in Fig. 1 according to a twelfth embodiment;

20 Figure 32 is a diagram showing a display example of digital content of a cinema, nationwide advertising information and regional advertising information downloaded to a user;

Figure 33 is a diagram showing the configuration of a digital content billing system using a network according to a fourteenth embodiment of the present invention; and

25 Figure 34 is a diagram showing the configuration of a digital content billing system using a network according to a fifteenth embodiment of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The invention will now be described with reference to the accompanying drawings.

EMBODIMENT 1

30 Figure 1 is a diagram showing the configuration of a digital content billing system using a network according to a first embodiment of the present invention.

In Fig. 1, each of reference numerals 1a, 1b indicates a user using digital content, reference numerals 11a and 11b indicate terminals possessed by the users 1a and 1b, [[a]] reference numeral 2 indicates a network through which digital content is transmitted, a

reference numeral 21 indicates a network operator managing the network 2, reference numerals 3a and 3b indicate holders respectively holding a right to let a third person (or a plurality of third persons) use digital content, reference numerals 4a and 4b indicate distributors for downloading the digital content to the users 1a and 1b through the network 2.

5 Each digital content is set by one holder so as to become usable by using an execution key . Reference numeral 4c indicates a distributor for distributing the digital content by mail, by supplements of magazines or by hand in the street, and reference numerals 41a and 41b indicate servers possessed by the distributors 4a and 4b.

In Fig. 1, reference numerals 5a and 5b indicate advertisers who possess 10 advertising information pieces to be provided for the users 1a and 1b . Reference numerals 6a and 6b indicate administrators who each contract with the holders 3a and 3b and the advertisers 5a and 5b, receive an execution declaration of digital content from each of the users 1a and 1b, download the execution keys received from the holders 3a and 3b and the advertising information pieces of the advertisers 5a and 5b through the network 2, collect 15 an advertisement rate for one advertising information piece from each of the advertisers 5a and 5b that is determined according to the number of execution times of the corresponding digital content used by the users 1a and 1b and pay an execution fee for one digital content to each of the holders 3a and 3b that is determined according to the number of execution times of the digital content used by the users 1a and 1b . Reference numerals 61a and 61b 20 indicate servers possessed by the administrators 6a and 6b.

Figure 2 is a diagram showing the configuration of the terminal 11a possessed by the user 1a. The terminal 11a represents the terminals 11a and 11b in Fig. 2.

In Fig. 2, a reference numeral 111 indicates a media storing unit, having a large data capacity, for storing digital content downloaded through the network 2. A reference numeral 25 112 indicates a central processing unit (CPU) for controlling the operation of the terminal 11a, a reference numeral 113 indicates a memory for storing data required to operate the CPU 112, a reference numeral 114 indicates an external media input/output circuit connected to a game controller Gac, a keyboard K/B, a mouse Mo and a home television TV. A reference numeral 115 indicates a ciphered data deciphering circuit for deciphering a ciphered digital 30 content by using an encryption key or the execution key, a reference numeral 116 indicates a network interface, a reference numeral 117 indicates a bus of the terminal 11a, and a reference numeral 12a indicates a digital service unit (DSU) through which the network interface 116 is connected to a two-way subscriber line of a fiber-to-the-home (FTTH) type. The digital service unit (DSU) 12a functions as a terminating unit of a subscriber line.

The terminal 11a with a game control function of the game controller Gac is connected to the keyboard K/B, the mouse Mo and the home television TV functioning as a display to display the digital content. Also, the digital service unit (DSU) 12a is connected to the two-way subscriber line FTTH formed of an optical fiber. In this embodiment, the subscriber line 5 is formed of an optical fiber. However, it is applicable that the subscriber line be formed of a coaxial cable. Also, it is applicable that a telephone line normally used be additionally arranged to make the user 1a communicate with the administrator 6a or 6b or the distributor 4a or 4b.

Figure 3(a) is a diagram showing a preventing method preventing an unacceptable 10 digital content execution in which digital content converted into a digital information ciphering type is distributed. In Fig. 3(a), digital content is ciphered in the server 41a of the distributor 4a by using the encryption key and is downloaded to the terminal 11a of the user 1a. Thereafter, the ciphered digital content is deciphered in the terminal 11a of the user 1a by using a decryption key, and the deciphered digital content is used by the user 1a.

15 Figure 3(b) is a diagram showing another preventing method preventing an unacceptable digital content execution in which a guard is arranged in digital content or the terminal 11a. In Fig. 3(b), the user 1a obtains the execution key and deciphers the ciphered digital content by using the execution key. In this embodiment, any of the unacceptable execution preventing methods can be used.

20 Next, an operation of the digital content billing system using the network 2 is described.

Figure 4 is a diagram showing an entire processing of the digital content billing system using the network 2 according to the first embodiment of the present invention. The advertiser 5a distributes an advertising information piece to the administrator 6a, and the 25 administrator 6a stores the advertising information piece in the server 61a. The holder 3b sets digital content so as to become usable by using an execution key and downloads the digital content not made usable to the server 41b of the distributor 4b. The distributor 4b is expected to distribute the digital content, through the network 2. The holder 3b also downloads the execution key, which is required to use the digital content not made usable, to the server 61a 30 of the administrator 6a through the network 2. The distributor 4b downloads the digital content downloaded from the holder 3b to the terminal 11a of the user 1a through the network 2.

Thereafter, when the administrator 6a receives an execution declaration of the digital content from the user 1a who desires to use the digital content distributed to the user 1a from

the distributor 4b, the administrator 6a attaches the advertising information piece distributed from the advertiser 5a to the execution key downloaded from the holder 3b and downloads the execution key and the advertising information piece to the terminal 11a of the user 1a through the network 2. The downloading of the execution key to the user 1a denotes a 5 permission for the execution declaration. That is, the administrator 6a permits the user 1a to make the digital content usable by using the execution key.

Thereafter, the user 1a makes usable the digital content downloaded from the distributor 4b by using the execution key downloaded from the administrator 6a. In this case, the advertising information piece downloaded from the administrator 6a is automatically 10 inserted in the digital content and is displayed with the digital content on the television TV. The above procedure is may be performed only once, or iteratively. Therefore, the user 1a uses the digital content provided by the holder 3b only once or many times while seeing the advertising information piece.

Thereafter, because the advertising information piece is always displayed with the 15 digital content, the administrator 6a determines an advertisement rate for the advertising information piece according to the number of execution times of the digital content used by the user 1a, and collects the advertisement rate from the advertiser 5a. The administrator 6a also determines an execution fee for the digital content provided by the holder 3b according to the number of execution times of the digital content used by the user 1a. The administrator 20 6a pays the execution fee to the holder 3b.

Figure 5 is a diagram showing a procedure of a preparation stage in the digital content 25 billing system using the network 2 according to the first embodiment. In a step ST11, the administrator 6a makes an agent collection contract with the holder 3b to let the administrator 6a collect a digital content execution fee. In a step ST12, the holder 3b downloads the execution key of the digital content to the administrator 6a through the network 2 according to the agent-collection contract. In a step ST13, the administrator 6a makes an advertising information download contract with the advertiser 5a for the downloading of the advertising information piece. In a step ST14, the advertiser 5a distributes the advertising information piece to the administrator 6a according to the advertising information download contract.

30 In a step ST15, the distributor 4b makes a digital content download contract with the holder 3b for the downloading of the digital content. In a step ST16, the holder 3b sets the digital content to become usable by using the execution key and downloads the digital content to the distributor 4b through the network 2 according to the digital content download contract.

The contract making order in the agent-collection contract for the collection of the execution fee in the step ST11, the advertising information download contract in the step ST13 and the digital content download contract in the step ST15 is not limited to the above order. Any contract can be made first. Also, it is applicable that the distributor 4b agree with the holder 3b. In this case, the steps ST15 and ST16 are omitted.

Figure 6 is a diagram showing a procedure of an execution stage of the digital content in the digital content billing system using the network 2 according to the first embodiment.

In a step ST21, the distributor 4b downloads digital content indicating a game software title to become usable to the user 1a through the network 2 using the execution key 2. In a step ST22, the user 1a sends an execution declaration of the digital content to the administrator 6a through the network 2.

In a step ST23, the administrator 6a downloads the execution key received from the holder 3b and the advertising information piece received from the advertiser 5a to the user 1a. In a step ST24, the user 1a uses the digital content made usable by using the execution key downloaded from the administrator 6a while the user 1a sees the advertising information piece downloaded from the administrator 6a. Thereafter, in the same manner as in the steps ST21 to ST24, the user 1a uses digital content of a cinema downloaded from the distributor 4b while the user 1a sees the advertising information piece in steps ST25 to ST28.

Figure 7 is a diagram showing a display example of the advertising information piece and the digital content of the game software title downloaded to the user 1a. In Fig. 7, the advertising information piece is displayed simultaneously with the game software title.

Figure 8 is a diagram showing a display example of the advertising information piece and the digital content of the movie downloaded to the user 1a. In Fig. 8, the advertising information piece is displayed in each advertising time period between display time periods of images of the movie.

Figure 9 is a diagram showing a procedure of an account settlement stage in the digital content billing system using the network 2 according to the first embodiment.

In a step ST31, the administrator 6a totals execution times of the digital content to calculate the number of total execution times of the digital content used by the user 1a. In a step ST32, the administrator 6a notifies the advertiser 5a of the number of total execution times of the digital content in which the advertising information piece is inserted. In a step, ST33, the advertiser 5a pays an advertisement rate to the administrator 6a that corresponds to the number of total execution times of the digital content, to the

administrator 6a. In a step ST34, the administrator 6a notifies the holder 3b of the number of total execution times of the digital content and pays holder 3b a digital content execution fee, which corresponds to the number of total execution times of the digital content.

5 In a step ST35, the distributor 4b calculates the number of download times of the digital content downloaded from the distributor 4b and notifies the holder 3b of the number of download times of the digital content. In a step ST36, the holder 3b pays a digital content download charge to the distributor 4b that corresponds to the number of download times of the digital content.

10 In this embodiment, the digital content download charge depends on the number of download times of the digital content according to a charge contract of the distributor 4b with the holder 3b for the downloading of the digital content. However, the present invention is not limited to this charge contract. For example, it is applicable that the digital content download charge depend on digital content downloading time period. In this case, the 15 notification of the number of download times of the digital content from the distributor 4b to the holder 3b in the step ST35 is not necessary.

Also, in this embodiment, the administrator 6a makes the advertising information download contract with the advertiser 5a and inserts the advertising information piece in the digital content. However, the present invention is not limited to this advertising information download contract. For example, it is applicable that the distributor 4b directly make an advertising information download contract with the advertiser 5b for the downloading of an advertising information piece. In this case, for example, the distributor 4b inserts the advertising information piece received from the advertiser 5b in an image of a digital content menu, which is produced by the distributor 4b and is watched by the user 1a to select a 20 desired file of digital content from a plurality of files of digital content, to make the user 1a see the advertising information piece on the television TV, and the distributor 4b collects an advertising rate for the advertising information piece from the advertiser 5b. Therefore, 25 the step ST36 is not required.

Also, it is applicable that the distributor 4b agree with the holder 3b. In this case, the 30 steps ST35 and ST36 can be omitted.

Also, in this embodiment, the distributor 4b receives the digital content from the holder 3b that is set to become usable by using the execution key, the distributor 4b then downloads the digital content to the user 1a, the user 1a receives the execution key and the advertising information piece from the administrator 6a, and the user 1a uses the digital

content. However, it is applicable that the distributor 4b, who receives digital content usable without the execution key from the holder 3b, downloads the digital content to the well-intentioned user 1a to let the user 1a use the digital content on condition that the user 1a receives the advertising information piece from the administrator 6a.

5 Also, in this embodiment, the holders 3a and 3b, who each hold a right to let a third person (or a plurality of third persons) use digital content of the holder, respectively makes a contract with each of the administrators 6a, 6b and the distributors 4a, 4b and downloads the digital content and its execution key. However, because a creator creating the digital content holds the right to let a third person use the digital content, it is applicable that the creator make a contract with each of the administrators 6a, 6b and the distributors 4a, 4b and download the digital content and its execution key. In this case, the creator is included in each of the holders 3a and 3b.

10 Each holder holding a right to let a third person (or a plurality of third persons) use digital content of the holder is defined as follows.

15 In cases where the right for digital content is transferred from a creator creating the digital content to a person, the person becomes a holder. Also, in cases where a person is authorized by a creator creating digital content to let a third person use the digital content, the person becomes a holder. For example, the holder denotes an agent of a creator. Also, in cases where a creator creates digital content (for example, software), a person who obtains a 20 permission from the creator to distribute a digital content execution right to a third person is the holder. Also, in cases where a creator creates digital content (for example, a music file, video file or a game software title), a person who obtains a permission from the creator to distribute a digital content playback right to a third person is the holder. Also, a person who obtains a permission from a creator to distribute digital content created by the creator to a 25 third person is a holder. Also, there is a case that the holder denotes a second holder authorized by a first holder who is authorized by a creator.

Accordingly, in the first embodiment, the user can enjoy desired digital content without charge by seeing the downloaded advertising information piece.

30 Also, in the first embodiment since any user can use digital content without charge, the digital content provided by the holder 3b can be easily seen by many users so that the holder 3b can obtain an execution fee corresponding to the number of execution times of the digital content.

Also, in the first embodiment, in cases where digital content downloaded from the distributor 4b to the user 1a is copied by the user 1a, it is required that the user 1a notifies the

administrator 6a of the use of the digital content, so that the administrator 6a can know the number of execution times of the digital content copied and used by the user 1a. Therefore, even though digital content downloaded to the user 1a is copied by the user 1a, the holder 3b can reliably obtain an execution fee for the copied digital content.

5 Also, in the first embodiment, because the administrator 6a permits the user 1a to use digital content when the administrator 6a receives an execution declaration expressing the use of the digital content from the user 1a, the administrator 6a can reliably obtain the number of execution times of the digital content used by the user 1a.

10 Also, in the first embodiment; it is not required that the administrator 6a collects an execution fee for digital content from the user 1a who uses the digital content. Therefore, even though a large number of users use the digital content, the administrator 6a can be released from the difficulty of collecting the execution fee from each of the users.

15 Also, in the first embodiment, the advertiser 5a can efficiently make user 1a see the advertising information piece by only paying the advertisement rate to the administrator 6a.

EMBODIMENT 2

The configuration of a digital content billing system using a network according to a second embodiment is the same as that shown in Fig. 1 of the first embodiment.

20 In the second embodiment, an advertising information piece possessed by the advertiser 5a has already been inserted in each digital content which is planned to be downloaded from the holder 3b to the distributor 4b.

An operation of the digital content billing system using the network according to the second embodiment is described.

25 Figure 10 is a diagram showing an entire processing of the digital content billing system using the network shown in Fig. 1 according to the second embodiment of the present invention.

30 The advertiser 5a distributes an advertising information piece to the holder 3b. The holder 3b sets digital content so as to become usable by using an execution key, and the holder 3b downloads the digital content not made usable containing the inserted advertising information piece to the server 41a of the distributor 4 through the network 2. The holder 3b also downloads the execution key required to make the digital content usable to the server 61a of the administrator 6a through the network 2. The distributor 4b downloads the digital content, which is downloaded from the holder 3b and includes the advertising information piece, to the terminal 11a of the user 1a through the network 2.

Thereafter, when the administrator 6a receives an execution declaration from the user la

5 who desires to use the digital content distributed to the user la, the administrator 6a downloads the execution key downloaded from the holder 3b to the terminal 11a of the user la through the network 2. The user la makes usable the digital content, which is downloaded from the distributor 4b and includes the advertising information piece, by using the execution key downloaded from the administrator 6a, and the user la uses the digital content while the user la sees the advertising information piece. In this case, the advertising information piece is displayed with the digital content on the television TV. The above procedure is may be 10 performed only once or iteratively, so that the user la sees the digital content provided by the holder 3b only once or many times while seeing the advertising information piece.

15 Thereafter, the administrator 6a notifies the advertiser 5a of the number of execution times of the digital content used by the user la, the advertiser 5a pays an advertisement rate to the holder 3b that corresponds to the number of execution times of the digital content used by the user la. The holder 3b pays an execution key download charge to the adiminstrator 6a that corresponds to the number of download times of the execution key downloaded to the user la.

Figure 11 is a diagram showing a procedure of a preparation stage in the digital content billing system using the network 2 according to the second embodiment.

20 In a step ST41, the administrator 6a makes an agent collection contract with the holder 3b to let the administrator 6a collect a digital content execution fee. In a step ST42, the holder 3b downloads the execution key of the digital content to the administrator 6a through the network 2 according to the agent-collection contract. In a step ST43, the holder 3b makes an advertising information download contract with the advertiser 5a for the 25 downloading of the advertising information piece. In a step ST44, the advertiser 5a distributes the advertising information piece to the holder 3b according to the advertising information download contract.

30 In a step ST45, the distributor 4b makes a digital content download contract with the holder 3b for the downloading of the digital content. In a step ST46, the holder 3b downloads the digital content, which is set to become usable by using the execution key and includes the advertising information, to the distributor 4b through the network 2 according to the digital content download contract.

A contract making order in the agent-collection contract for the collection of the execution fee in the step ST41, the advertising information download contract in the step

ST43 and the digital content download contract in the step ST45 is not limited to the above order. Any contract can be made first. It is also applicable that the distributor 4b agree with the holder 3b. In this case, the steps ST 45 and ST46 are omitted.

Figure 12 is a diagram showing a procedure of an execution stage of the digital content in the digital content billing system using the network 2 according to the second embodiment.

In a step ST51, the distributor 4b downloads digital content indicating a game software title, which is set to become usable by using the execution key and includes the advertising information, to the user 1a through the network 2. In a step ST52, the user 1a sends an execution declaration expressing the use of the digital content to the administrator 6a through the network 2.

In a step ST53, the administrator 6a downloads the execution key received from the holder 3b to the user 1a. In a step ST54, the user 1a uses the digital content by using the execution key downloaded from the administrator 6a when seeing the advertising information piece inserted into the digital content. Thereafter, in the same manner as in the steps ST51 to ST54, the user 1a uses digital content of a cinema downloaded from the distributor 4b while seeing the advertising information piece in steps ST55 to ST58.

A method for displaying, in the step ST54, both the digital content of the game software title and the advertising information piece downloaded from the distributor 4b is the same as that shown in Fig. 7, and the advertising information piece is displayed with an image of the game software title. Also, a method for displaying, in the step ST58, both the digital content of the movie and the advertising information piece downloaded from the distributor 4b are the same as that shown in Fig. 8. The advertising information piece is displayed in each advertising time period between display time periods of images of the movie.

Figure 13 is a diagram showing a procedure of an account Settlement stage in the digital content billing system using the network 2 according to the second embodiment.

In a step ST61, the administrator 6a totals execution times of the digital content to calculate the number of total execution times of the digital content used by the user 1a. In a step ST62, the administrator 6a notifies the advertiser 5a of the number of total execution times of the digital content in which the advertising information piece is inserted. In a step ST63, the advertiser 5a pays an advertisement rate to the holder 3b that corresponds to the number of total execution times of the digital content. In a step ST64, the administrator 6a notifies the holder 3b of the number of total download times of the execution key

downloaded from the administrator 6a. In a step ST65, the holder 3b pays an execution key download charge to the administrator 6a that corresponds to the number of total download times of the execution key.

In a step ST66, the distributor 4b calculates the number of download times of the 5 digital content downloaded from the distributor 4b and notifies the holder 3b of the number of download times of the digital content. In a step ST67, the holder 3b pays a digital content download charge to the distributor 4b that corresponds to the number of download times of the digital content downloaded from the distributor 4b.

In this embodiment, the digital content download charge depends on the number of 10 download times of the digital content according to a charge contract of the distributor 4b with the holder 3b for the downloading of the digital content. However, the present invention is not limited to this charge contract. For example, it is applicable that the digital content download charge depends on a digital content downloading possible time period. In this case, the notification of the number of download times of the digital content from the distributor 4b 15 to the holder 3b in the step ST66 is not necessary.

Also, in this embodiment, the holder 3b makes the advertising information download contract with the advertiser 5a and inserts the advertising information piece in the digital content. However, the present invention is not limited to this advertising information download contract. For example, it is applicable that the distributor 4b 20 directly make an advertising information download contract with the advertiser 5b for the downloading of an advertising-information piece. In this case, for example, the distributor 4b inserts the advertising information piece received from the advertiser 5b in an image of a digital content menu that is watched by the user 1a to select a desired file of digital content from a plurality of files of digital content this makes the user 1a see the advertising 25 information piece on the television TV, and the distributor 4b collects an advertisement rate for the advertising information piece from the advertiser 5b. Therefore, the step ST67 is not required.

Also, it is applicable that the distributor 4b agree with the holder 3b. In this case, the steps ST66 and ST67 can be omitted.

Accordingly, in the second embodiment, the user can enjoy a desired digital content 30 without charge by seeing the downloaded advertising information piece.

Also, in the second embodiment, since the advertising information has already been inserted in the digital content by the holder 3b when the user 1a receives the digital content from the distributor 4b, the downloading of the advertising information piece performed each

time the user 1a uses the digital content is not required. Therefore, a waiting period from the sending time of the execution declaration to the receiving time of the execution key can be shortened.

Also, in the second embodiment, since the user can enjoy digital content without charge, the digital content provided by the holder 3b can be easily used by many users. The holder 3b can obtain an advertisement rate corresponding to the number of execution times of the digital content used by the user 1a while seeing the advertising information piece.

Also, in the second embodiment, even though the digital content downloaded from the distributor 4b is copied by the user 1a to use the copied digital content, the user 1a is required to the administrator 6a of the use of the digital content. Therefore, the administrator 6a can know the number of execution times of the digital content copied and used by the user 1a. Consequently, even though digital content downloaded to a user is copied by the user, the holder 3b can reliably obtain an execution fee for the copied digital content.

Also, in the second embodiment, since the administrator 6a permits the user 1a to use digital content when the administrator 6a receives an execution declaration of the digital content from the user 1a, the administrator can reliably obtain the number of execution times of the digital content.

Also, in the second embodiment, it is not required that the administrator 6a collects an execution fee for digital content from the user 1a who uses the digital content. Therefore, even though a large number of users use the digital content, the administrator 6a can be released from in collecting the execution fee from each of the users.

Also, in the second embodiment, the advertiser 5a can efficiently make the user 1a see the advertising information piece by only paying the advertisement rate to the holder 3b.

25 EMBODIMENT 3

The configuration of a digital content billing system using a network according to a third embodiment is the same as that shown in Fig. 1 of the first embodiment.

In the third embodiment, the administrator 6a does not download a set of one execution key and one advertising information piece each time the administrator 6a receives the execution declaration from the user 1a, but instead the administrator 6a downloads a plurality of advertising information pieces and an execution key required to let a user use digital content a prescribed number of times, in cases where the administrator 6a receives the execution declaration expressing the use of the digital content from the user 1a.

An operation of the digital content billing system using the network according to the third embodiment is described. Figure 14 is a diagram showing an entire processing of the digital content billing system using the network shown in Fig. 1 according to the third embodiment of the present invention.

5 Each of the advertisers 5a and 5b distributes an advertising information piece to the administrator 6a, and the administrator 6a stores the advertising information pieces in the server 61a. The holder 3b sets digital content 30 so as to become usable by using an execution key and downloads the digital content to the server 41a of the distributor 4 through the network 2. The holder 3b also downloads the execution key, which is required to make 10 usable the digital content, to the server 61a of the administrator 6a through the network 2. The distributor 4b downloads the digital content downloaded from the holder 3b to the terminal 11a of the user 1a through the network 2.

15 Thereafter, when the administrator 6a receives an execution declaration from the user 1a who desires to use the digital content distributed from the distributor 4b twice, the administrator 6a attaches the advertising information pieces distributed from the advertisers 5a and 5b to the execution key downloaded from the holder 3b. Therefore the user can use 20 the digital content twice. Thereafter, the administrator 6a downloads the execution key and the advertising information pieces to the terminal 11a of the user 1a through the network 2. The user 1a uses the digital content downloaded from the distributor 4b by using the execution key downloaded from the administrator 6a. In this case, the advertising information piece downloaded from the administrator 6a is automatically displayed with the 25 digital content on the television TV.

Thereafter, when the user 1a again uses the digital content downloaded from the distributor 4b by using the execution key downloaded from the administrator 6a, the 25 advertising information piece downloaded from the administrator 6b is automatically displayed with the digital content on the television TV. Therefore, the user 1a uses the digital content while seeing the advertising information piece downloaded from the administrator 6b.

30 Thereafter, the administrator 6a determines an advertisement rate for each advertising information piece according to the number of execution times of the digital content, which is used by the user 1a while the user 1a sees the advertising information piece. The administrator 6a then collects the advertisement rate for the advertising information piece, which is downloaded from the advertiser 5a, from the advertiser 5a. The administrator 6a collects the advertisement rate for the advertising information piece downloaded from the advertiser 5b from the advertiser 5b. Further, the administrator 6a determines an execution

fee for the digital content according to the number of execution times of the digital content used by the user 1a, and the execution fee to the holder 3b.

In the example of Fig. 14, the administrator 6a receives the advertising information piece distributed from each of the advertisers 5a and 5b. The administrator 6a permits that 5 the user 1a uses the digital content at first while seeing the advertising information piece of the advertiser 5a, and the administrator 6a permits that the user 1a uses the digital content at the second place while seeing the advertising information piece of the advertiser 5b. However, it is applicable that the administrator 6a permit that the user 1a uses the digital content at prescribed times while seeing the same advertising information piece of the 10 advertiser 5a (or the advertiser 5b). In this case, the user 1a receives only the advertising information piece of the advertiser 5a (-or the advertiser 5b).

A method for permitting the user 1a to use the digital content at prescribed times is described.

For example, the administrator 6a writes a piece of plural-execution permission 15 information into the execution key. Therefore, the user 1a can make usable the digital content at prescribed times by using the execution key. It is also applicable that a piece of plural-execution permission information be additionally attached to the set of the advertising information pieces and the execution key downloaded to the user 1a. It is also applicable that the user 1a have a program in advance in the server 11a to let the user 1a use 20 the digital content at prescribed times corresponding to the number of advertising information pieces downloaded to the user 1a. It is also applicable that a plurality of execution keys be downloaded with a plurality of advertising information pieces (or one advertising information piece) to the user 1a to allow the user 1a use the digital content prescribed times corresponding to the number of execution keys.

25 Figure 15 is a diagram showing a procedure of a preparation stage in the digital content billing system using the network 2 according to the third embodiment.

In a step ST71, the administrator 6a makes an agent-collection contract with the 30 holder 3b to let the administrator 6a collect a digital content execution fee. In a step ST72, the holder 3b downloads the execution key required to make usable digital content of to the administrator 6a through the network 2 according to the agent-collection contract. In a step ST73, the administrator 6a makes an advertising information download contract with each of the advertisers 5a and 5b for the downloading of the advertising information pieces of the advertisers 5a and 5b. In a step ST74, each of the advertisers 5a and 5b

distributes his advertising information piece to the administrator 6a according to the advertising information download contract.

In a step ST75, the distributor 4b makes a digital content download contract with the holder 3b for the downloading of the digital content. In a step ST76, the holder 3b downloads the digital content is set to become usable by using the execution key to the distributor 4b through the network 2 according to the digital content download contract.

A contract making order in the agent-collection contract for the collecting of the execution fee in the step ST71, the advertising information download contract in the step ST73 and the digital content download contract in the step ST75 is not limited to the above order. Any contract can be made first. It is also applicable that the distributor 4b agree with the holder 3b. In this case, the steps ST75 and ST76 are omitted.

Figure 16 is a diagram showing a procedure of an execution stage of the digital content in the digital content billing system using the network 2 according to the third embodiment.

In a step ST81, the distributor 4b downloads digital content indicating a game software title, which is set to become usable by using the execution key, to the user 1a through the network 2. In a step ST82, the user 1a sends an execution declaration, which expresses that the user 1a desires to use the digital content a prescribed number times, to the administrator 6a through the network 2.

In a step ST83, the administrator 6a downloads the advertising information pieces received from the advertisers 5a and 5b and the execution key to the user 1a so as to permit the user 1a to use the digital content a prescribed number times. In a step ST84, the user 1a uses the digital content made usable by using the execution key downloaded from the administrator while the user 1a sees the advertising information piece downloaded from the administrator 6a. Thereafter, in a step ST85, the user 1a again uses the digital content, which is made usable by using the execution key downloaded from the administrator 6a, while the user 1a sees the advertising information piece downloaded from the administrator 6b.

In the steps ST84 and ST85, a method for displaying both the game software title and the advertising information piece downloaded from each distributor is the same as that shown in Fig. 7. The advertising information piece is displayed with an image of the game software title.

Figure 17 is a diagram showing a procedure of an account settlement stage in the digital

content billing system using the network 2 according to the third embodiment.

In a step ST91, the administrator 6a total execution times of the digital content used by the user 1a. That is, the administrator 6a calculates the total number of first execution times of the digital content used by the user 1a while the user 1a sees the advertising information piece

downloaded from the advertiser 5a . The administrator 6a also calculates the second number of total execution times of the digital content used by the user 1a while the user 1a sees the advertising information piece downloaded from the advertiser 5b. In a step ST92, the administrator 6a notifies the advertiser 5a of the first number of total execution times of the digital content, and the administrator 6a notifies the advertiser 5b of the second number of total execution times of the digital content. In a step ST93, the advertiser 5a pays an advertisement rate to the administrator 6a that corresponds to the number of total execution times of the digital content, and the advertiser 5b pays an advertisement rate to the administrator 6a that corresponds to the second number of total execution times of the digital content. In a step ST94, the administrator 6a notifies the holder 3b of the total number of total execution times of the digital content used by the user 1a, and the administrator 6a pays a digital content execution fee to the holder 3b that corresponds to the number of total execution times of the digital content.

In a step ST95, the distributor 4b notifies the holder 3b of the number of download times of the digital content downloaded from the distributor 4b. In a step ST96, the holder 3b pays a digital content download charge to the distributor 4b that corresponds to the number of download times of the digital content.

In this embodiment, the digital content download charge depends on the number of download times of the digital content according to a charge contract of the distributor 4b with the holder 3b for the downloading of the digital content. However, the present invention is not limited to this charge contract. For example, it is applicable that the digital content download charge depend on a digital content downloading possible time period. In this case, the notification of the number of download times of the digital content from the distributor 4b to the holder 3b in the step ST95 is not necessary.

Also, in this embodiment, the administrator 6a makes the advertising information download contract with the advertisers 5a and 5b and inserts each of the advertising information pieces of the advertisers 5a and 5b into the digital content. However, the present invention is not limited to this advertising information download contract. For example, it is applicable that the distributor 4b make an advertising information download contract with

each of the advertisers 5a and 5b for the downloading of an advertising information piece. In this case, for example, the distributor 4b inserts the advertising information piece received from each of the advertisers 5a and 5b in an image of a digital content menu, which is watched by the user la to select a desired file of digital content from a plurality of files of 5 digital content this makes the user la see the advertising information piece of each of the advertisers 5a and 5b on the television TV, and the distributor 4b collects an advertisement rate for the advertising information piece from each of the advertisers 5a and 5b. Therefore, the step ST96 is not required.

Also, it is applicable that the distributor 4b agree with the holder 3b. In this case, the 10 steps ST95 and ST96 are omitted.

Accordingly, in the third embodiment, because it is not required that the user la sends the execution declaration to the administrator 6a each time the user la uses the digital content, the user la can reduce the difficulty of the sending of the execution declaration, and a waiting time period from the sending of the execution declaration to the receiving of the execution 15 key can be shortened.

Also, in the third embodiment, the user la can use a desired digital content many times without charge by seeing the downloaded advertising information pieces.

Also, in the third embodiment, because any user can use digital content without charge, the digital content provided by the holder 3b can be easily seen by many users. 20 Therefore, the holder 3b can obtain an execution fee corresponding to the number of execution times of the digital content used by the users.

Also, in the third embodiment, in cases where digital content downloaded from the distributor 4b to the user la is copied by the user la to use the copied digital content, it is required that the user la notify the administrator 6a of the use of the digital content, so that 25 the administrator 6a can know the number of execution times of the digital content copied and used by the user la. Therefore, even though digital content downloaded to a user is copied by the user, the holder 3b can reliably obtain an execution fee for the copied digital content.

Also, in the third embodiment, because the administrator 6a permits the user la to use 30 digital content prescribed times only when the administrator 6a receives an execution declaration expressing the use of the digital content from the user la, the administrator 6a can reliably obtain the number of execution times of the digital content used by the user la.

Also, in the third embodiment, it is not required that the administrator 6a collects an execution fee for digital content from the user la who uses the digital content. Therefore,

even though a large number of users use the digital content, the administrator 6a can be released from the difficulty of collecting from each of the users.

Also, in the third embodiment, each of the advertisers 5a and 5b can efficiently make the user 1a see the advertising information piece by only paying the advertisement rate to the 5 administrator 6a.

EMBODIMENT 4

The configuration of a digital content billing system using a network according to a fourth embodiment is the same as that shown in Fig. 1 of the first embodiment.

In cases where the network 2 is not operated, the user 1a cannot send an execution 10 declaration to the administrator 6a through the network 2. Therefore, the user 1a cannot receive an execution key from the administrator 6a. Further, in cases where the server 6a of the administrator 6a is in a down condition, even though the user 1a sends an execution declaration to the administrator 6a through the network 2, the user 1a cannot receive an execution key from the administrator 6a.

15 In the fourth embodiment, in cases where the user 1a cannot receive an execution key from the administrator 6a that which is required to make digital content usable, the user 1a uses the digital content by using an execution key received from the administrator 6a in the past. This display an advertising information piece received with the execution key in the past from the administrator 6a on the television TV.

20 An operation of the digital content billing system using the network according to the fourth embodiment is described.

Figure 18 is a diagram showing a procedure of a preparation stage in the digital content billing system using the network 2 according to the fourth embodiment.

25 In a step ST101, the administrator 6a makes an agent-collection contract with the holder 3b to let the administrator 6a collect a digital content execution fee. This agent-collection contract includes a term that digital content used in the past can be used again in an offline operation in cases where an abnormal state occurs.

30 In a step ST102, the holder 3b downloads the execution key, which works as an offline key in case of an abnormal state, to the administrator 6a through the network 2 according to the agent-collection contract.

In a step ST103, the administrator 6a makes an advertising information download contract with the advertiser 5a for the downloading of the advertising information piece. In a step ST104, the advertiser 5a distributes the advertising information piece to the administrator 6a according to the advertising information download contract.

In a step ST105, the distributor 4b makes a digital content download contract with the holder 3b for the downloading of the digital content. In a step ST106, the holder 3b downloads the digital content, which is set to become usable by using the execution key, to the distributor 4b through the network 2 according to the digital content download contract.

A contract making order in the agent-collection contract for the collection of the execution fee in the step ST101, the advertising information download contract in the step ST103 and the digital content download contract in the step ST105 is not limited to the above order. Any contract can be made first. Also, it is applicable that the distributor 4b agree with the holder 3b. In this case, the steps ST105 and ST106 are omitted.

Figure 19 is a diagram showing a procedure of an execution stage of the digital content in the digital content billing system using the network 2 according to the fourth embodiment.

In a step ST111, the distributor 4b downloads digital content indicating a game software title, which is set to become usable by using the execution key, to the user 1a through the network 2. In a step ST112, the user 1a sends an execution declaration expressing the use of the digital content to the administrator 6a through the network 2.

In a step ST113, the administrator 6a downloads the execution key received from the holder 3b, which makes usable the digital content in an offline operation in case of the occurrence of an abnormal state. The administrator 6a also downloads the advertising information piece received from the advertiser 5a to the user 1a. In a step ST114, the user 1a uses the digital content by using the execution key downloaded from the administrator 6a while the user 1a sees the advertising information piece downloaded from the administrator 6a.

Thereafter, in a step ST115, the user 1a tries to again send the execution declaration expressing the use of the digital content to the administrator 6a through the network 2. In this case, the network 2 is not operating, or the server 6a of the administrator 6a is in a down condition. Therefore, the terminal 11a of the user 1a cannot connect to the server 61a of the administrator 6a even though a prescribed time passes. In cases where the terminal 11a of the user 1a is not connected to the server 61a of the administrator 6a after a prescribed time, it is assumed in a step ST116 that the occurrence of an abnormal state is detected by the terminal 11a of the user 1a. Thereafter, in a step ST117, the user 1a again uses the digital content made usable by the execution key downloaded in the step ST113, while seeing the advertising information piece downloaded in the step ST113.

Figure 20 is a diagram showing a procedure of an account settlement stage in the digital content billing system using the network 2 according to the fourth embodiment.

In a step ST121, the administrator 6a totals execution times of the digital content to calculate the number of total execution times of the digital content used by the user 1a. In a step ST122, the administrator 6a notifies the advertiser 5a of the number of total execution times of the digital content in which the advertising information piece is inserted. In a step ST123, the advertiser 5a pays an advertisement rate to the administrator 6a corresponds to the number of total execution times of the digital content. In a step ST124, the administrator 6a notifies the holder 3b of the number of total execution times of the digital content and pays a digital content execution fee to the holder 3b corresponds to the number of total execution times of the digital content.

In a step ST125, the distributor 4b calculates the number of download times of the digital content and notifies the holder 3b of the number of download times of the digital content. In a step ST126, the holder 3b pays a digital content download charge to the distributor 4b that corresponds to the number of download times of the digital content.

Accordingly, in the fourth embodiment, in cases where the user 1a cannot be connected to the administrator 6a when the user 1a tries to send an execution declaration expressing the use of digital content to the administrator 6a, the user can enjoy the digital content made usable by using an execution key downloaded in the past, while seeing an advertising information piece downloaded with the execution key in the past. Therefore, even though an abnormal state occurs in the digital content billing system using the network 2, the user can reliably use the digital content.

Also, in the fourth embodiment, because any user can use digital content without charge, the digital content provided by the holder 3b can be easily seen by many users. Therefore, the holder 3b can obtain an execution fee corresponding to the number of execution times of the digital content.

Also, in the fourth embodiment, in cases where digital content downloaded from the distributor 4b to the user 1a is copied by the user 1a to use the copied digital content, it is required that the user 1a notifies the administrator 6a of the use of the digital content. Therefore, the administrator 6a can reliably know the number of execution times of the digital content is copied and used by the user 1a. Therefore, even though digital content downloaded to a user is copied by the user, the holder 3b can reliably obtain an execution fee for the copied digital content.

Also, in the fourth embodiment, because the administrator 6a permits the user 1a to use digital content when the administrator 6a receives an execution declaration expressing the use of the digital content from the user 1a, the administrator 6a can reliably obtain the number of execution times of the digital content used by the user 1a.

5 Also, in the fourth embodiment, it is not required that the administrator 6a collects an execution fee for digital content from the user 1a who uses the digital content. Therefore, even though a large number of users use the digital content, the administrator 6a can be released from the difficulty of collecting the execution fee from each of the users.

10 Also, in the fourth embodiment, the advertiser 5a can efficiently make the user 1a see the advertising information piece by only paying the advertisement rate to the administrator 6a.

EMBODIMENT 5

The configuration of a digital content billing system 55 using a network according to a fifth embodiment is the same as that shown in Fig. 1 of the first embodiment.

15 In this embodiment, in cases where the user 1a uses digital content made usable by an execution key downloaded in an offline operation in the past according to the fourth embodiment. The user 1a notifies the administrator 6a of the use of the digital content in the offline operation when the connection of the user 1a with the administrator 6a is recovered after the disconnection of the user 1a with the administrator 6a.

20 An operation of the digital content billing system using the network according to the fifth embodiment is described.

A procedure of a preparation stage in the digital content billing system using the network 2 according to the fifth embodiment is the same as that shown in Fig. 18 of the fourth embodiment.

25 Figure 21 is a diagram showing a procedure of an execution stage of the digital content in the digital content billing system using the network 2 according to the fifth embodiment.

The steps ST111 to ST117 are performed in the same manner as those of Fig. 19 performed according to the fourth embodiment.

30 Thereafter, in a step ST118 of Fig. 21, the user 1a sends an execution notification to the administrator 6a. This execution notification notifies the administrator 6a that the user 1a uses the digital content made usable by the execution key downloaded in the past in the offline operation while seeing the advertising information piece downloaded with the execution key in the past.

A procedure of an account settlement stage in the digital content billing system using the network 2 is the same as that shown in Fig. 20 of the fourth embodiment other than the step ST121.

In the step ST121, the administrator 6a totals execution times of the digital content that is known according to the execution declaration of the user 1a in the step ST112 and execution times of the digital content that is known according to the execution notification of the user 1a in the step ST118, and calculates the number of total execution times of the digital content used by the user 1a.

Accordingly, in the fifth embodiment, in addition to the effects obtained in the fourth embodiment, the administrator 6a can accurately obtain the number of execution times of the digital content used in the offline operation.

EMBODIMENT 6

The configuration of a digital content billing system using a network according to a sixth embodiment is the same as that shown in Fig. 1 of the first embodiment.

An operation of the digital content billing system using the network according to the sixth embodiment is described.

Figure 22 is a diagram showing a procedure of the determination of an advertisement rate in an account settlement stage in the digital content billing system using the network 2 according to the sixth embodiment. The advertisement rate determination procedure of Fig. 22 is performed in the server 61a of the administrator 6a.

In a step ST131, it is ascertained whether or not one month has passed after the determination of an advertisement rate previously performed. In cases where one month has not passed, it is checked in a step ST132 whether or not an execution declaration newly sent from the user 1a exists. In cases where the execution declaration exists, the number of execution times of the digital content, in which the advertising information piece is inserted, is incremented by one in a step ST133. Thereafter, the procedure returns to the step ST131.

In cases where one month has passed in the step ST131, a step ST134 is performed. In step ST134 the number of execution times of the digital content incremented for each execution declaration is set as the number of total execution times of the digital content. The administrator 6a notifies the advertiser 5a of the number of total execution times of the digital content to charge an advertisement rate corresponding to the number of total execution times of the digital content.

Accordingly, in the sixth embodiment, the administrator 6a can correctly determine the number of total execution times of the digital content used by the user 1a.

Also, because the advertiser 5a pays the advertisement rate determined in correspondence to the number of total execution times of the digital content correctly determined There is no probability that the advertiser 5a pays an advertisement rate for the advertising information piece not seen by the user 1a and the advertiser 5a can rely on the administrator 6a without anxiety to download the advertising information piece to the user 1a.

In the sixth embodiment, the existence of the execution declaration is checked in the

10 step

ST132. However, in cases where an execution notification expressing the use of the digital content in the offline operation is sent from the user 1a to the administrator 6a according to the fifth embodiment, it is preferred that the existence of an execution declaration or an execution notification newly sent is checked in the step ST132.

15 EMBODIMENT 7

The configuration of a digital content billing system using a network according to a seventh embodiment is the same as that shown in Fig. 1 of the first embodiment.

In this embodiment, the administrator 6a determines an advertising information piece to be downloaded to the user 1a according to contents of digital content of which the execution 20 is declared by the user 1a as an execution declaration.

Figure 23 is a block diagram showing the configuration of the server 61a possessed by the administrator 6a.

In Fig. 23, a reference numeral 611 indicates a network interface connected to a digital service unit (DSU) 62a, and a reference numeral 612 indicates an external media input/output 25 circuit connected to peripheral apparatuses such as a keyboard K/B, a mouse Mo, a display CRT and a television TV for monitoring digital content to be downloaded. A reference numeral 613 indicates a central processing unit (CPU) for controlling the whole processing of the server 61a, a reference numeral 614 indicates a memory for storing data to be used for the operation of the CPU 613, a reference numeral 615 indicates a content information execution 30 key data base for registering an execution key corresponding to each file of digital content, a reference numeral 616 indicates an advertising information storing unit for storing advertising information pieces, a reference numeral 617 indicates an advertising information keyword data base for registering a keyword of each of the advertising information pieces stored in the advertising information storing unit 616, and a reference numeral 618 indicates a

content information keyword data base for storing a keyword of each file of the digital content.

Next, an operation of the digital content downloading system using the network according to the seventh embodiment is described.

5 Figure 24 is a diagram showing a procedure of the determination of an advertising information piece in an execution stage of digital content in the digital content billing system using the network 2 according to the seventh embodiment.

10 In a step ST141, the user 1a sends an execution declaration to the CPU 613 of the server 61a of the administrator 6a expressing the use of a particular digital content, which is designated by a title number "100254" and a title "For Under 100 In Golf" and has a playback time period of one hour.. In a step ST142, the CPU 613 requires an execution key corresponding to the title number"100254" of the content information execution key data base 615. In a step ST143, the content information execution key data base 615 sends a particular execution key corresponding to the title number "100254" to the CPU 613.

15 In a step ST144, the CPU 613 inquires into the content information keyword data base 618 a keyword corresponding to the title number "100254". In a step ST145, the content information keyword data base 618 extracts keywords "golf", "slice prevention" and "bunker escape" corresponding to the title number "100254" and notifies the CPU 613 of the keywords. The keywords "golf", "slice prevention" and "bunker escape" indicate tastes and 20 interests of the user 1a.

25 In a step ST146, the CPU 613 inquires into the advertising information keyword data base 617 about one or more advertising information pieces corresponding to the keywords "golf", "slice prevention" and "bunker escape". In a step ST147, the advertising information keyword data base 617 extracts an advertising number "35-345" of a particular advertising information piece corresponding to the keywords "golf", "slice prevention" and "bunker escape" and notifies the CPU 613 of the advertising number "35-345".

30 In a step ST148, the CPU 613 requires the particular advertising information piece indicated by the advertising number "35-345" of the advertising information storing unit 616. In a step ST149, the advertising information storing unit 616 extracts the particular advertising information piece "Golf Clubs For Beginners" corresponding to the advertising number "35-345" and notifies the CPU 613 of the particular advertising information piece "Golf Clubs For Beginners". In a step ST150, the CPU 613 downloads the particular advertising information piece "Golf Clubs For Beginners" and the particular execution key obtained in the step ST143 to the user 1a. In a step ST151, the user 1a uses the particular

digital content "For Under 100 In Golf" made usable by the particular execution key, while seeing the particular advertising information piece "Golf Clubs For Beginners" that is downloaded from the administrator 6a.

Accordingly, in the seventh embodiment, since the administrator 6a obtains the tastes 5 and interests of the user 1a according to the particular digital content for which the user 1a sends the execution declaration to the administrator 6a, the advertiser 5a efficiently makes the user 1a see the particular advertising information piece in which the user 1a takes an interest. Also, because the user 1a can see the particular advertising information piece in which the user 1a takes an interest, it is unlikely that the user 1a sees an advertising information piece in 10 which the user 1a takes no interest. Therefore, there is no probability that the user 1a is inconvenienced or offended by seeing an advertising information piece in which the user 1a takes no interest.

EMBODIMENT 8

The configuration of a digital content billing system using a network according to an 15 eighth embodiment is the same as that shown in Fig. 1 of the first embodiment.

In this embodiment, the user 1a specifies his desired genre of an advertising information piece planned to be downloaded to the user 1a.

Next, an operation of the digital content downloading system using the network according to the eighth embodiment is described.

20 Figure 25 is a diagram showing a procedure of the determination of an advertising information piece in an execution stage of digital content in the digital content billing system using the network 2 according to the eighth embodiment.

In a step ST161, the distributor 4b downloads digital content indicating a game 25 software title to the user 1a. In a step ST162, the user 1a sends an execution declaration of the digital content to the administrator 6a. In a step ST163, the administrator 6a encourages or requires the user to select a genre of an advertising information piece to be downloaded to the user 1a.

Figure 26 is a diagram showing an advertising information genre selection image used for the user 1a to determine a genre of an advertising information piece.

30 In a step ST164, the user 1a selects a "travel agency" as his desired genre from a plurality of advertising information genres of the advertising information genre selection image shown in Fig. 26. The user 1a desires to see an advertising information piece of his desired genre. In a step ST165, as a reply to the inquiry of the administrator 6a, the user 1a notifies the administrator 6a of the "travel agency" indicating the desired genre of the

advertising information piece. In a step ST166, the administrator 6a downloads a particular advertising information piece related to the notified "travel agency" and a particular execution key of the digital content related to the execution declaration to the user la. In a step ST167, the user la uses the digital content made usable by the particular execution key 5 while seeing the particular advertising information piece related to the "travel agency".

In this embodiment, the user la selects his desired genre of an advertising information piece to be downloaded to the user la. However, it is also applicable that the user la specify a desired keyword of an advertising information piece to be downloaded to the user la,

Accordingly, in the eighth embodiment, since the user la selects his desired genre of 10 an advertising information piece to be downloaded to the user la or because the user la specifies a desired keyword of an advertising information piece to be downloaded to the user la, the advertiser 5a can efficiently let the user la see the particular advertising information piece in which the user la takes an interest.

Also, because the user la can see the particular advertising information piece in which 15 the user la takes an interest, it is unlikely that the user la sees an advertising information piece in which the user la takes no interest. Therefore, it is unlikely that the user is inconvenienced or offended by seeing an advertising information piece in which the user la takes no interest.

EMBODIMENT 9

The configuration of a digital content billing system using a network according to an 20 ninth embodiment is the same as that shown in Fig. 1 of the first embodiment.

In this embodiment, a genre (or a keyword) of digital content used by the user la and a genre (or a keyword) of an advertising information piece selected by the user la are stored as records of the user la in the server 61a of the administrator 6a each time the user la uses the digital content while seeing the advertising information piece. Tastes and interests of the 25 user la are assumed according to the records of the user la obtained in the past, and an advertising information piece suitable for the tastes and interests of the user la is downloaded to the user la in a current time.

Figure 27 is a block diagram showing the configuration of the server 61a possessed by the administrator 6a according to the ninth embodiment.

30 In Fig. 27, a reference numeral 620 indicates a user data base for registering keywords of digital content used in the past by the user la. The other configuration is the same as that shown in Fig. 23 of the seventh embodiment.

Next, an operation of the digital content downloading system using the network 2 according to the ninth embodiment is described.

Figure 28 is a diagram showing a procedure of the determination of an advertising information piece in an execution stage of digital content in the digital content billing system using the network 2 according to the ninth embodiment.

In a step ST171, the user la sends an execution declaration to the CPU 613 of the 5 server 61a of the administrator 6a expressing the use of a particular digital content, that is designated by a title number "100366" and a title "Carving" and has a playback time period of one hour.. In a step ST172, the CPU 613 requires an execution key corresponding to the title number "100366" of the content information execution key data base 615. In a step 10 ST173, the content information execution key data base 615 sends a particular execution key corresponding to the title number "100366" to the CPU 613.

In a step ST174, the CPU 613 inquires into the content information keyword data base 618 about a keyword corresponding to the title number "100366". In a step ST175, the content information keyword data base 618 extracts keywords "ski", "avoid skidding and drifting" and "turning radius" corresponding to the title number "100366" and notifies the. 15 CPU 613 of the keywords "ski", "avoid skidding and drifting" and "turning radius". The keywords "ski", "avoid skidding and drifting" and "turning radius" indicate tastes and interests of the user la.

In a step ST176, the CPU 613 notifies the user data base 620 of a particular user identifier (ID) of the user la to inquire [of]] into the user data base 620 records of the user la. 20 The CPU 613 makes the user data base 620 register the keywords "ski", "avoid skidding and drifting" and "turning radius" in correspondence to the particular user ID of the user la. Therefore, the keywords "ski", "avoid skidding and drifting" and "turning radius" are registered in the user data base 620 as records of the user la. In a step ST177, keywords 25 "small sharp turn", "crust slope" and "steep, non-groomed slope", which correspond to the particular user ID and have been already registered, are extracted from the user data base 620 as the records of the user la, and the user data base 620 notifies the CPU 613 of the keywords "small sharp turn", "crust slope" and "steep, non-groomed slope".

In a step ST178, the CPU 613 inquires of the advertising information keyword data base 617 an advertising information piece indicated by the keywords "ski", "avoid skidding and drifting", "turning radius", "small sharp turn", "crust slope" and "steep, non=groomed slope". In a step ST179, the advertising information keyword database 617 extracts an advertising number "12-567"of a particular advertising information piece corresponding to the keywords "ski", "avoid skidding and drifting", "turning radius", "small sharp turn", "crust

slope" and "steep, non-groomed slope" and notifies the CPU 613 of the advertising number "I2-567".

In a step ST180, the CPU 613 requires the particular advertising information piece indicated by the advertising number "12-567" of the advertising information storing unit 616.

5 In a step ST181, the particular advertising information piece "Skis For Racers" corresponding to the advertising number "12-567" is extracted from the advertising information storing unit 616, and the advertising information storing unit 616 notifies the CPU 613 of the particular advertising information piece "Skis For Racers". In a step ST182, the CPU 613 downloads the particular advertising information piece "Skis For Racers" and the particular execution 10 key obtained in the step ST173 to the user la. In a step ST183, the user la uses the particular digital content "Curving" made usable by the particular execution key while seeing the particular advertising information piece "Skis For Racers" downloaded from the administrator 6a.

Because a carving technique related to the particular digital content "Curving" used 15 by the user la corresponds to all skiers ranging from beginners to competitors, it is difficult to assume a ski skill level of the user la according to one or more keywords (for example, the keywords "ski", "avoid skidding and drifting" and "turning radius") which are obtained from the digital content used by the user la. Therefore, the administrator 6a refers to the records 20 (for example, the keywords "ski", "avoid skidding and drifting", "turning radius", "small sharp turn "crust slope" and "steep, non-groomed slope") of the user la which are obtained from the digital content used by the user la in the past and current times and are registered in the user data base 620, the administrator 6a knows that the user la is, for example, a skier of an upper skill level, and the administrator 6a downloads the particular advertising 25 information piece "Skis For Racers" to the user la because it is assumed that the user la of the upper skill level takes interest in of race model skies and intends to buy a pair of skis.

To register the records of the user la, there is a second method in which digital content used by the user la in the past is recorded in the user data base 620. However, the method of this embodiment, in which the keywords corresponding to the digital content used by the user la in the past are recorded in the user data base 620, is preferred to the second method for the 30 protection of a user's privacy.

Accordingly, in the ninth embodiment, because the tastes and interests of the user la can be correctly obtained according to the records of the user la and the digital content currently used by the user la, it is unlikely that the user la sees an advertising information piece in which the user la takes no interest. Therefore, it is also unlikely that the user is

inconvenienced or offended by seeing an advertising information piece in which the user la takes no interest.

Also, the advertiser 5a efficiently makes the user la see the particular advertising information piece in which the user la takes an interest.

5 EMBODIMENT 10

The configuration of a digital content billing system using a network according to a tenth embodiment is the same as that shown in Fig. 1 of the first embodiment.

Next, an operation of the digital content downloading system using the network 2 according to the tenth embodiment is described.

10 Figure 29 is a diagram showing a procedure of the determination of an advertisement rate in an account settlement stage in the digital content billing system using the network 2 according to the tenth embodiment. The advertisement rate determination procedure shown in Fig. 29 is performed in the server 61a of the administrator 6a.

15 In a step ST191, it is ascertained whether or not one month has passed after the determination of an advertisement rate previously performed. In cases where one month has not passed, it is checked in a step ST192 whether or not an execution declaration of digital content newly sent from the user la exists. In cases where the execution declaration exists, one or more keywords of the digital content corresponding to the execution declaration are extracted in the content information keyword data base 618 in a step ST193. Thereafter, in a 20 step ST194, one or more keywords of an advertising information piece downloaded to the user la to make the user la see the advertising information piece while using the digital content are extracted from the advertising information keyword data base 617.

25 In a step ST195, a first group of the keywords of the digital content extracted in the step ST193 are compared with a second group of the keywords of the advertising information piece extracted in the step ST194, and a matching point between the first group of the keywords and the second group of the keywords is calculated. As a matching point calculating method, for example, the number of keywords existing in both the groups is calculated, and a matching point corresponding to the number of keywords is determined.

30 In a step ST196, the matching point corresponding to one advertising information piece is added to a total matching point for each of advertising information pieces downloaded from the advertisers 5a and 5b. Thereafter, the procedure returns to the step ST191.

In cases where one month passes in the step ST191, a step ST197 is performed. In step ST197, the number of total execution times of the digital content in which one

advertising information piece is inserted is calculated in the same manner as in the sixth embodiment shown in Fig. 22 for each of the advertising information pieces downloaded from the advertisers 5a and 5b. The administrator 6a notifies each of the advertisers 5a and 5b of both the number of total execution times of the digital content that one advertising 5 information piece downloaded from the corresponding advertiser is inserted and the total matching point for the advertising information piece downloaded from the corresponding advertiser. The administrator 6a charges an advertisement rate to each of the advertisers 5a and 5b, which is determined by considering both the number of total execution times and the total matching point corresponding to each advertiser. Therefore, the administrator 6a 10 can collect the advertisement rate for the advertising information piece, which is downloaded from one advertiser from appropriate advertiser.

Accordingly, in the tenth embodiment, in cases where the administrator 6a 15 downloads a particular advertising information piece to the user 1a, the administrator 6a can collects a high advertisement rate for the particular advertising information piece from the advertiser 5a of the particular advertising information piece due to the high matching point.

Also, in the tenth embodiment, since the advertiser 5a pays an advertisement rate to the administrator 5a that, is determined by considering both the number of total execution times of the digital content and the total matching point corresponding to the particular advertising information piece of the advertiser 5a it is unlikely that the advertiser 5a pays an 20 advertisement rate for an advertising information piece not seen by the user 1a. Further, it is unlikely that the advertiser 5a pays a high advertisement rate for an advertising information piece related to a low total matching point. Therefore, the advertiser 5a can rely on the administrator 6a to download an advertising information piece while the advertiser 5a is satisfied that satisfies a relationship between the advertisement rate and an effect of the 25 advertising information piece on the user 1a.

EMBODIMENT 11

The configuration of a digital content billing system using a network according to an eleventh embodiment is the same as that shown in Fig. 1 of the first embodiment.

In this embodiment, a low limit of the number of advertising information 30 downloading times or a lowest ratio of the number of downloading times of a particular advertising information piece to the number of downloading times of all advertising information pieces is guaranteed by the administrator 6a according to a contract of an advertiser made with the administrator 6a. In this case, there is a probability that the

particular advertising information piece of the advertiser is not downloaded to a user who takes no interest in the genre of the particular advertising information.

Next, an operation of the digital content downloading system using the network 2 according to the eleventh embodiment is described.

5 Figure 30 is a diagram showing a contract relationship between the administrator 6a and each advertiser according to the eleventh embodiment.

In Fig. 30, because the advertiser 5a strongly pushes forward the selling of particular goods, the advertiser 5a makes a minimum downloading guarantee type contract with the administrator 6a for the downloading of a particular advertising information piece. In this 10 minimum downloading guarantee type contract, a minimum number of downloading times of the particular advertising information piece downloaded in a prescribed period from the administrator 6a to a plurality of users represented by the users 1a and 1b is guaranteed by the administrator 6a, or a minimum ratio of the number of downloading times of the particular advertising information piece to the number of downloading times of a 1 advertising 15 information pieces downloaded in a prescribed period from the administrator 6a to the users 1a and 1b is guaranteed by the administrator 6a. In contrast, the advertiser 5b makes a normal contract with the administrator 6a for the downloading of an advertising information piece.

The administrator 6a downloads the particular advertising information piece of the advertiser 5a to the users to guarantee the lowest number of downloading times of the 20 particular advertising information piece or the low ratio of the number of downloading times of the particular advertising information piece according to the lowest download guarantee type contract. The administrator 6a collects a high advertisement rate for the particular advertising information piece from the advertiser 5a.

In contrast, the administrator 6a downloads an advertising information piece of the 25 advertiser 5b to the users without guaranteeing the number of downloading times of the advertising information piece or the low ratio of the number of downloading times of the advertising information piece, and the administrator 6a collects a low advertisement rate for the advertising information piece from the advertiser 5b.

Accordingly, in the eleventh embodiment, even though the advertisement rate for the 30 particular advertising information piece of the advertiser 5a is high, since the advertiser 5a can expect a prescribed advertising effect required for the selling promotion of the particular goods, the advertiser 5a can rely on the administrator 6a without anxiety to download the particular advertising information piece to the users.

EMBODIMENT 12

The configuration of a digital content billing system using a network according to a twelfth embodiment is the same as that shown in Fig. 1 of the first embodiment.

In this embodiment, an advertising information piece, of which content closely relates to a residential district of the user la, is downloaded to the user la.

5 Next, an operation of the digital content downloading system using the network according to the seventh embodiment is described.

Figure 31 is a diagram showing a procedure of the determination of advertising information in an execution stage of digital content in the digital content billing system using the network 2 according to the twelfth embodiment.

10 In a step ST201, the distributor 4b downloads digital content indicating a game software title to the user la. In a step ST202, the user la sends an execution declaration of the digital content to the administrator 6a. In a step ST203, the administrator 6a requires of the user la to select a residential district of the user la.

15 In a step ST204, the user la selects "Town = Ofuna, City = Kamakura, Country or Prefecture = Kanagawa" as the residential district of the user la. In a step ST205, the user la notifies the administrator 6a of the "Town = Ofuna, City = Kamakura, Country or Prefecture = Kanagawa" as a reply of the residential district. In a step ST206, the administrator 6a downloads to the user 1a a particular advertising information piece closely related to the residential district "Town = Ofuna, City = Kamakura, Country or Prefecture = Kanagawa" of the user la and a particular execution key of the digital content related to the execution declaration. A gasoline station newly opened in the residential district of the user la is, for example, introduced in the particular advertising information piece.

20 In a step ST207, the user la uses the digital content made usable by the particular execution key while seeing the particular advertising information piece closely related to the residential district of the user la.

25 In this embodiment, the user la selects the "Town = Ofuna, City = Kamakura, Country or Prefecture = Kanagawa" as the residential district of the user la and notifies the administrator 6a of the "Town = Ofuna, City = Kamakura, Country or Prefecture = Kanagawa". However, it is applicable that the user la specify his user ID and notify the administrator 6a of the user ID to make the server 61a of the administrator 6a extract a residential district of the user la from a residential district data base according to the user ID.

30 Accordingly, in the twelfth embodiment, the advertiser 5a closely related to a particular residential district can download his advertising information piece to the user la who resides in the same particular district. Therefore, the advertiser 5a can efficiently and

effectively performs his advertisement for users residing in the district closely related to the advertiser 5a.

EMBODIMENT 13

The configuration of a digital content billing system using a network according to a thirteenth embodiment is the same as that shown in Fig. 1 of the first embodiment.

5 In this embodiment, a regional advertising information piece, of which content closely relate to a residential district of the user la, and a nationwide advertising information piece are downloaded to the user la.

Next, an operation of the digital content downloading system using the network according to the thirteenth embodiment is described.

10 Figure 32 is a diagram showing a display example of digital content of a movie, a nationwide advertising information piece and a regional advertising information piece are downloaded to the user la.

15 In Fig. 32, a nationwide advertising information piece that relates to a special field, and a regional advertising information piece that closely relates to a residential district of the user la are downloaded with an execution key to the user la, and the nationwide advertising information piece and the regional advertising information piece are alternately displayed at 30 minutes intervals with the image of the movie for 2 hours.

In this case, it is preferred that the special field of the nationwide advertising information piece is selected on condition that the user la takes interest in the special field.

20 Accordingly, in the thirteenth embodiment, since the nationwide advertising information piece and the regional advertising information piece are downloaded to the user la and are alternately displayed on the television TV of the user la, the user la see the nationwide advertising information piece and the regional advertising information piece with high satisfaction.

25 **EMBODIMENT 14**

Figure 33 is a diagram showing the configuration of a digital content billing system using a network according to a fourteenth embodiment of the present invention.

30 In Fig. 33, a reference number 7 indicates an access network, and a reference number 71 indicates a network operator such as a regional operating company who manages the access network 7. The other configuration is the same as that shown in Fig. 1 of the first embodiment.

Next, an operation of the digital content downloading system using the network according to the fourteenth embodiment is described.

When the user la sends an execution declaration of digital content through the access network 7 managed by the network operator 71 and the network 2 managed by the network operator 21, the network operator 21 or 71 examines a residential district of the user la and notifies the administrator 6a of the residential district of the user la. In response to the 5 residential district of the user la, the administrator 6a selects a regional advertising information piece which closely relates to the residential district of the user la and is downloaded from the advertiser 5a, and the administrator 6a downloads the regional advertising information piece and an execution key of the digital content to the user la. Therefore, though the user la does not send his residential district or his user' ID, the user la 10 uses the digital content while seeing the regional advertising information piece closely related to the residential district of the user la.

In this embodiment, the network operator 21 or 71 notifies the administrator 6a of the residential district of the user la. However, to protect the privacy of the user la, it is applicable that the network operator 21 or 71 notifies the administrator 6a of a name of the regional 15 operating company acting as the network operator 71 through which the user la is connected to the network 2.

Accordingly, in the fourteenth embodiment, it is not required that the user la notifies the administrator 6a of the residential district or the user's ID of the user la. Therefore, the user la can be released from a difficulty in which the user la notifies the 20 administrator 6a of the residential district or the user's ID.

Also, the advertiser 5a makes the user la see the regional advertising information piece closely related to the user la without making the user la be conscious of his residential district.

EMBODIMENT 15

Figure 34 is a diagram showing the configuration of a digital content billing system using a network according to a fifteenth embodiment of the present invention.

In Fig. 34, reference numbers 2a and 2b indicate networks managed by a plurality of network operators 21a and 21b, a reference number 8a indicates an administrator and distributor, and a reference number 8b indicates an administrator and distributor. The users la and lb, the holders 3a and 3b, the advertisers 5a and 5b are the same as those shown in Fig. 1 30 of the first embodiment.

In this embodiment, the administrator and distributor 8a and the administrator and distributor 8b respectively download digital content, an execution key of the digital content and an advertising information piece to each of the users la and lb.

Next, an operation of the digital content downloading system using the network according to the fifteenth embodiment is described.

The administrator and distributor 8a makes a contract with the holder 3b, and the administrator and distributor 8a receives digital content and an execution key of the digital content from the holder 3b. The administrator and distributor 8a also makes a contract with the advertiser 5a, and the administrator and distributor 8a receives an advertising information piece from the advertiser 5a. When the user 1a sends an execution declaration of the digital content to the administrator and distributor 8a, the administrator and distributor 8a downloads the digital content, the execution key of the digital content and the advertising information piece to the user 1a. Thereafter, the administrator and distributor 8a collects an advertisement rate, which from the advertiser 5a that corresponds to the number of execution times of the digital content used by the user 1a. Also, the administrator and distributor 8a pays an execution fee to the holder 3b that , which corresponds to the number of execution times of the digital content used by the user 1a.

Accordingly, in the fifteenth embodiment, because the digital content, the execution key of the digital content and the advertising information piece are simultaneously downloaded to the user 1a, the user 1a can obtain the digital content in simultaneous with the sending of the execution declaration of the digital content.